

General Specifications Outdoor models PVI-2000-OUTD

AURORA® BENEFITS

- IP65 (NEMA 4) ruggedized, completely sealed unit to stand the harshest environmental conditions
- High speed MPPT for real time power tracking and improved energy harvesting
- Compact size and high power density: 2000W of output power in a box just 420mm x 326mm x 141mm
- Front heatsink keeps the unit cleaner and more efficient over time
- Transformerless operation for highest efficiency: up to 96%
- Reverse polarity protection minimizes chance of damage due to mis-wiring
- High overload capability: works up to 2000W under most ambient conditions
- True Sine Wave Output
- Anti-islanding Protection
- Certified grid connected operation according to the international standards
- LCD Display on the front to monitor the main parameters
- Standard DC Multi-Contact terminals, screw terminals option available



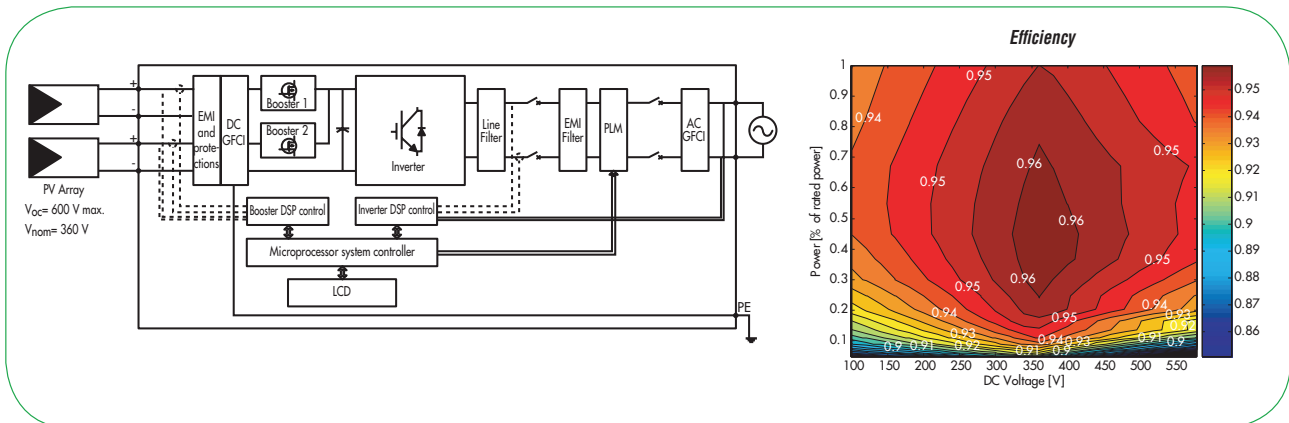
SMART CONTROLS

Aurora controls are DSP (Digital Signal Processor) based with sophisticated control and self-diagnostic algorithms. A LCD display shows the main operational parameters. Three LED's indicate the operating status.

STANDARDS AND CODES

Aurora inverters comply with standards set for grid-tied operation, safety and electromagnetic compatibility including: VDE0126, CEI 11-20 IV ed, DK5940, IEC 61683, IEC 61727, EN50081, EN50082, EN61000, CE certification, El Real Decreto RD1663/2000 de España, Australian AS4777, AS3100.

Block Diagram and typical efficiency



CHARACTERISTICS	PVI-2000-OUTD
INPUT PARAMETERS	
Nominal DC Power [kW]	2,1
Max. Recommended DC Power [kW]	2,3
Operating Input Voltage Range [V]	90 - 580 (360 nominal)
Full Power MPPT input voltage range (symmetrical load) [V]	210-530
Full asymmetrical load input voltage range [V]	NA
Absolute Max. Input Voltage [V]	600
Activation voltage "Vstart" [V]	200 nominal (adjustable within the range 120Vdc-350Vdc)
No of independent MPPT trackers	1
Max. Input Power, each MPPT [kW]	2
No. of DC Inputs	1
Max. DC Current, each MPPT [A]	10 (12 shortcircuit) 1 (1 positive, 1 negative)
DC Connection	MultiContact Ø 3mm (male - positive input + female - negative input) Mating cable connector included Conductor cross section: 4-6mmq/AWG12-10 - Cable Ø w/insulator: 3-6mm
INPUT PROTECTION	
Reverse polarity protection	Yes
Fuse rating, each input (-FS suffix versions only)	NA
DC side varistors	2, thermally protected
PV array Insulation Control	according to VDE0126-1-1
DC Switch (-S/-FS suffix versions only)	NA
OUTPUT PARAMETERS	
Nominal AC Power [up to 40°C, kW]	2
Max. AC Power [kW]	2
AC Grid Connection	single phase 230Vac 50Hz + PE
Nominal AC Voltage [V]	230
Maximum AC Voltage Range [V]	180-264
Nominal AC Frequency [Hz]	50
Max. AC Line Current [A]	9
AC Connection	Circular Bayonet Connector Conductor Cross Section: Solid / Stranded: 0.5-2.5mmq / AWG 20-14 Outer Cable Ø: 10-12mm
Line Power Factor	1
AC Current Distortion (THD%)	<2,5% at rated power with sine wave voltage
OUTPUT PROTECTION	
AC side varistors	2, plus gas arrester to ground
Ground fault protection (AC + DC leakage current)	according to VDE0126-1-1
CONVERSION EFFICIENCY	
Max. Efficiency	96%
Euro Efficiency	95,00%
ENVIRONMENTAL PARAMETERS	
Cooling	Natural cooling
Ambient Temp. Range [°C]	-20 / +60 (output power derating above 50°C)
Operating Altitude [m]	2000
Acoustical Noise [dBA]	<40 @1mt
Environmental IP Rating	IP65
Relative Humidity	0-100% condensing
MECHANICAL	
Dimensions [H x W x D]	420 x 326 x 141
Weight [kg]	12
OTHER	
Stand-By Consumption [W]	8
Feed In Power Threshold [W]	10
Night Time consumption [W]	0,3
Isolation	No isolation, Transformer-less
Display	YES (Alphanumeric 2 lines)
Communication	RS485 (screw terminal block - Conductor cross section: 0,08-1,5mmq/AWG28-16) Optional "Aurora Easy Control" remote monitoring system
AVAILABLE PRODUCT VARIANTS	
Standard - no options	PVI-2000-OUTD
With DC switch	NA
With DC switch and protection fuse/each input	NA

MODEL SUMMARY

MODEL NUMBER	POWER
PVI-2000-OUTD	2000W

Rev. 1.7 - 02/04/2009 - Aurora is a trademark by Power-One - Product is subject to technical improvements